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TRAINING IN GEOGRAPHY

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Geography has been taught for many years as an informational subject. Masses of facts are given, many of them undigested, and often these facts have no systematic relation to each other as they are given to the pupils to remember. Memory is made an all-important factor by this method of teaching the subject, and it is an undoubted fact that the memorizing of a mass of disconnected material is one of the most difficult accomplishments for the human mind, and one which is practically useless from an educational point of view. Most of the facts so learned are retained in the mind but a short time and are easily forgotten. This leads to the method of cramming for examination, which is always to be deplored.

Systematic training in the science of geography has demanded a good deal of attention during the past few years, and it is to this subject that attention is called in the following paper. The history of the development of systematic geography from the early work of Ritter and von Humboldt will not be discussed, but, assuming the fact that geography may now be considered a distinct branch of science, some of the more recent methods of teaching this important subject will be described and discussed as a valuable means of training the minds of pupils.

No one will doubt that every educated man should know a certain number of the important facts in regard to the geography of the world in which he lives, and of which he is a part. The relation of man to his surroundings is too important a subject to be lightly passed over in this age of great commercial enterprise. The boys of today will have to be the leaders of the world tomorrow. No one can successfully cope with the world-problems of trade and commerce unless he has some knowledge of the various portions of the world in which he is to become an important factor.

The difficulty lies in knowing just how to obtain this knowledge of the great world outside of one's own little sphere of activity. The ideal way, of course, would be to travel to all parts of the world, and see as minutely as one can the surroundings of other people in other climes; but, of course, this is possible for only a very few of us. The time necessary to obtain even a fairly accurate knowledge of the one hundred square miles immediately surrounding one's home makes it absolutely prohibitive to study the geography of the world by this ideal method. It is astonishing to find how few people have any adequate conception of even twenty-five square miles of territory immediately surrounding their home.

The method used, therefore, in systematic geography must be such that, with a minimum amount of actual travel, rational and intelligent ideas may be obtained of parts of the world which cannot be visited in person. Books of travel well written have always been interesting to boys, and it is undoubtedly true that a great deal of information in regard to other parts of the world comes from such books. The writer firmly believes that many more such books of travel, written particularly for young readers, will be of the greatest value as aids in the teaching of geography. This, however, is work which should be done outside of the class, as illustrative of class work rather than as the basis of systematic geography. The short stories written for children, such as have appeared in the last few years in the *St. Nicholas*, *Youth's Companion*, and other well-written papers for children, stimulate in the very young the thirst for more knowledge in regard to distant regions. These truthful stories of differing conditions have very wisely taken the place of the fantastic tales which used to be told in regard to monsters, goblins, and extinct animals. What is wanted is actual knowledge of the present conditions in the world in which the boy is to live.

There is very wide acceptance of the idea that the point to begin the teaching of geography is the home and its surroundings, the school, the school-yard, and the village, city, town, and country in which the pupils reside. Home geography

then should undoubtedly be the starting-point for systematic training in geography. The great difficulty in the carrying out of this idea is the fact that no textbook is available for every school. In fact, no publisher would consider the idea of making a separate textbook for each town. In a few of the great centers of population this has been attempted; and, as far as the result of only a few years of application of this method warrant an opinion, it is undoubtedly true that this method has met with very great success.

A greater difficulty than the textbook is the teacher. Very few teachers are properly prepared to instruct their pupils in regard to home surroundings. The teachers themselves do not know the home in which they live; this is a strange fact, but very true. A good teacher, in sympathy with the surroundings of the home and school, can develop a great deal of interest among the pupils in home geography. Teachers are too often afraid to rely entirely on themselves, and hesitate to start out as explorers with the class in the immediate vicinity of the school.

Principals and superintendents also are not alive to the real situation in this matter. They know that the teacher is untrained, and they fear the criticism of parents that "time is wasted when not spent looking at a book." The fact, however, remains that time is not wasted by out-of-door work, even if imperfectly done. It is far better to get a fair knowledge of one's surroundings on this earth than to have no knowledge whatever of one's surroundings. Observational knowledge remains in the mind much more tenaciously than facts learned from a book, and if the facts learned about the home are so learned that they lead the mind into the greater affairs of the state, the country, and the world, it will be of infinitely greater value to the pupils individually, as well as to the state, the country, and the world in which these pupils live.

By a study of any industry located at home, a knowledge of that industry, as carried on in other parts of the world, may be rationally and easily obtained. This study of some special branch of agriculture or manufacture leads to the wider study

of commerce. The commercial relations of the world depend on the facts of home geography in a great number of points. It is along these lines of commercial enterprise that the life-blood of the world flows. Until some reasonably accurate idea is obtained of the industries immediately surrounding one's home, it is practically impossible to give pupils any adequate conception of the great world-industries, of which his home industry is simply one small part.

Geography deals with many of the complex interrelations between man and the plants and animals which surround him. It is therefore important that he should study first the plants and animals surrounding him, before he can understand the great trade of the world in cotton and leather. A fairly accurate knowledge of the growth of the plants which surround him will enable the boy to form some rational conception of the growth of other plants in other parts of the world, which have an important relation to the life of man on the earth. A study of the habits and characteristics of the animals in any region will in a similar way enable the boy to conceive, in a fairly accurate way, the great facts in regard to many animals in different parts of the world, upon whose existence and development man so largely depends.

It may be safely said, therefore, that systematic training in geography should begin with the home surroundings; that a knowledge of the relative location of the home to the school, the school to the village, the village to the city, the railroad connections of county and state, leads to the state capital, to the state metropolis, and should lead later to a knowledge of the other states, and finally to the other countries of the world. The next step should be a study of the plants and animals surrounding the school, in order that the pupils may have a clear understanding of the great facts of animal and plant life which so closely affect the position of man on this globe.

No one will be bold enough to say that every school should take up systematic geography in exactly the same way. So much depends upon the locality, and so much on the individuality of the teacher, and upon the interest of both teacher and pupils,

that the best scheme for each individual school must necessarily differ from the best scheme for other schools. There are, however, many important principles which should be studied in every school, and a textbook based on these general principles, written so as to stimulate observation rather than memory, may be so constructed that it will be of service for schools in very widely differing localities. It must emphasize those facts of local geography which are characteristic of the greatest number of regions. These exercises must, of course, be supplemented in each individual locality by the facts which appeal most to the interests of the pupils and the teacher.

Such a book should contain exercises based on the common animals and plants which occur in the greatest number of localities. When an exercise cannot be used in a given locality, another more suited to that individual school should be substituted in its place. Thus, after a few years of work in any given locality, a teacher will find those subjects which best stimulate the observational faculty of each pupil. The textbook will not be used as a cast-iron structure from which no deviation can be made, but will become an elastic structure which will simply guide the minds of teacher and pupils into the lines of thought best calculated to give the pupils such an idea of the immediate surroundings that they may then safely extend their conception to more distant regions.

For example, the study of meridians—that difficult stumbling-block for so many pupils—should begin with the idea of the shadows at noon of various objects. These shadows form the mid-day line for the school. Let this idea of mid-day line be extended until its significance is perfectly clear. At 12 o'clock the shadow of a pole forms the mid-day line for the school. Extend this mid-day line both north and south. When this conception is perfectly clear, introduce the idea that by following this mid-day line north and south the north pole and the south pole will be reached. Then state the fact that this is the meridian line of the school.

By the use of a small globe it will then be very easy to pass to the idea of the meridians of other places, and the false idea

often obtained that meridians are only imaginary lines, drawn at stated intervals east and west from Greenwich, will never enter the minds of the pupils. Mid-day lines are everywhere. Meridians in the same way pass through all points on the face of the earth. Their real character is thus firmly established in the minds of the pupils, and the mathematical fact that lines may be imagined between any two points does not enter into the conception at all. An actual meridian line should be drawn on the schoolroom floor or in the school-yard, from which pupils may take their first conception of a map.

Map-drawing and map-construction should be among the earliest ideas introduced to pupils. Before maps of the county, state, country, and world are introduced, pupils should know from actual experience what a map is. Make a map first of what may be seen—the schoolroom, the school-yard, or the village. Let this map be constructed on different scales, so that pupils may realize what the change of scale means—the representation on a small area of a greater area. One of the commonest sources of misconception in geography is the lack of appreciation of what a map really represents.

When pupils thoroughly understand the meridian and the school map, the idea of representing a larger area should be introduced. This may be called a *route map*. The class should cover an area so large that it cannot all be seen from one point. A compass may be used to give direction; pacing, revolutions of a wheel, or time taken on a trolley trip may be used for distance. The route followed on the trip should then be represented on different scales. More than one such route map will have to be made before all the class gets a correct idea of what a map really means.

When the making of such a route map is impracticable, a very good substitute is to take the courses followed by different pupils from their homes in different parts of the town to the school. When each one has made a map of his daily walk to and from school, these lines may be put together on the black-board by the teacher or pupils, and the map of the village is thus easily obtained. The school in this map may be represented

by a dot, while in the first map constructed it is represented by four lines surrounding the space which represents the interior of the school building. Only after these conceptions are fully fixed in the minds of the pupils is it safe to introduce a map which represents the village as a dot, with roads and railroads connecting surrounding towns, also represented by dots.

Along with the development of the idea of local geography a knowledge of what a village contains should be obtained by the pupils. The writer firmly believes that it is the wisest plan to introduce with this study of locational geography a knowledge of what makes up a town—its people, business, manufactures, its railroads, its steamship lines—as well as the plants and animals which inhabit the region.

Geography truly includes the elements of various sciences. If the elements of the various branches of science are introduced at this early period as a part of the teaching of geography, the pupils gain a better conception of what geography really is, and at the same time get a conception of what the other sciences treat. If the facts thus taught are wisely selected, geography will not become a mass of disconnected facts, but will be a natural foundation for scientific training, and a stepping-stone to the later study of the details of these other sciences.